[Detailed Description of the Invention]

[0001]

[Industrial Application]This invention relates to the message recorded message sender for telephone of the answering machine it was made to answer by automatic playback of the message currently recorded beforehand to the telephone call which receives a message from a predetermined telephone line at any time, When making it answer by a message with background music to the telephone call in which said predetermined telephone line receives a message especially, it is related with the message recorded message sender for telephone of the answering machine which can record a more desirable message with background music more easily.

[0002]

[Description of the Prior Art]Very highly efficient CPU (central processing unit) is one-chip-ized by remarkable progress of the engineering of LSI (large scale integrated circuit), production technology, etc. What has a bigger storage capacity is more cheaply provided increasingly also about memories, such as RAM (random access memory) and ROM (read only memory).

[0003]By progress of such digital technique, an answering machine serves as various functions especially in recent years, and it spreads through many homes increasingly. Fundamentally, such an answering machine receives instead of this user by automatic playback of the message currently recorded beforehand as opposed to the telephone call which receives a message from a dial-up line etc. at any time at the time of a user's absence.

[0004]To such an answering machine in recent years, for example, in remote control operation from the touch-tone phone type public telephone of a place where one has gone, etc. Some are provided with the thing called a remote control function of carrying out remote setting of the absence set set up answer [as opposed to / in hearing the contents of a telephone call (timed recording is called henceforth) which the answering machine recorded **** / the telephone call in absent] automatically the inside of absent. Such some remote control functions included the function to record a housesitting message (message which receives the telephone call which receives a message at the time of an absence) via a dial-up line, from the public telephone of the place where one has gone, etc., for example.

[0005]The music of a user's request is beforehand recorded to the answering machine in recent years as a suspension melody, and there are some which have what is called the original suspension function to pass this suspension melody to the other party at the time of suspension of a telephone call in it. According to such a suspension melody, it is more various than the very simple electronic music box with which many answering machines in recent years and multi-function telephones are provided, and the suspension melody which has width in compass can be used. For example, it is also possible to consider it as the suspension melody by orchestra.

[0006]
[Goal(s) to be Achieved by the Invention]However, in the answering machine which existed from the former, it was not considered about the point of blowing a certain background music into the message at the time of answering to the telephone call whose telephone line receives a message. Henceforth, the message into which such background music is blown is called a message with background music.
[0007]For this reason, when it was going to create a message with background music conventionally, the user had blown in from the microphone by making a desired message into a housesitting message simultaneously, passing desired music, for example from the loudspeaker of a tape recorder, etc.
[0008]However, when trying to blow a housesitting message in the above remote control functions from a place where one has gone, it was impossible to have passed background music from a tape recorder etc. as mentioned above. Even if the housesitting messages blown beforehand are the above messages with background music, Thus, if a housesitting message is blown in a place-where-one-has-gone remote control function, though natural, an old message not only disappears, but the background music will disappear.
[0009]Also when operating it with the manual operation button on an answering machine, there is same problem. That is, even if there is a message with background music beforehand, if a housesitting message is newly blown, an old message will disappear, and though natural, the background music will also disappear.
[0010]In this invention, it was made in order to solve said conventional problem.
With therefore, the device which answers by a message with background music to the telephone call whose predetermined telephone line receives a message. It aims at providing the message recorded message sender for telephone of the answering machine which can record a message without erasing background music, when changing a message.

[0011]
[Means for Achieving the Goal]In a message recorded message sender for telephone of an answering machine it was made to answer by automatic playback of a housesitting message currently recorded beforehand in this invention to a telephone call which receives a message from a predetermined telephone line at any time, A memory for messages which memorizes said recorded housesitting message, It had a memory for music which remembers background music recorded independently to be the sound recording of said housesitting message, and sound reproduction mixing parts which generate synthesized speech of said housesitting message and said background music to the response of said telephone call.
Therefore, said technical problem is attained.

[0012]In a message recorded message sender for telephone of said answering machine, volume in inside of said synthesized speech of an ingredient of said background music, It has further a music BORIUMU set part set up from a remote place via said telephone line, When said sound reproduction mixing parts were provided with a music volume control part which actually controls volume in inside of said synthesized speech of an ingredient of said background music according to said setting out by said music BORIUMU set part, Said technical problem is attained and creation of a message with background music quality easier more is enabled.

[0013]In a message recorded message sender for telephone of said answering machine, according to volume of an ingredient of said housesitting message, It has further a music BORIUMU automatic setting part which sets up automatically volume in inside of said synthesized speech of an ingredient of said background music, When said sound reproduction mixing parts are provided with a music volume control part which actually controls volume in inside of said synthesized speech of an ingredient of said background music according to said automatic setup by said music BORIUMU automatic setting part, Similarly said technical problem is attained and creation of a message with background music quality easier more is enabled.

[0014]

[Function]Like the above-mentioned, in the conventional answering machine, it was not considered but was inconvenient about creation of the above messages with background music. it is alike, and an example is taken about the conventional answering machine [like], and this message into which such background music was blown accomplishes this invention paying attention to the point that utility value is dramatically high.

[0015]For example, according to such a message with background music, it is also possible to raise dramatically the impression to us whom they receive. Or when they have talked over the telephone in the more complicated situation, even if it is, the outstanding effect of making their state of mind settle down can also be acquired. For example, even if are a case where there is a problem in the dealings on our commerce, or a product, or they have a certain misunderstanding to such dealings and goods, and complicated [the state of mind to us of them], and difficult, Also making their state of mind settle down by the background music in a housesitting message is considered.

[0016]About the importance of enabling the change more easily about such a message with background music, its attention is paid to this invention and it is accomplished. For example, also when it is going to change only the message in such a message with background music, background music must also be blown anew, then it takes time and effort dramatically. Or it is almost impossible to blow background music again with message change in the above place-where-one-has-gone remote control functions. Therefore, it is important to make unnecessary

the re-entrainment of the above background music in the case where change of only a message arises.

[0017]Drawing 1 is a block diagram showing the gist of this invention.

[0018]As shown in this drawing 1, the message recorded message sender for telephone of the answering machine of this invention is mainly constituted by the memory 12 for messages, the memory 22 for music, and the sound reproduction mixing parts 18. It may be made to have the switch S1 grade which switches the output and line-in of the sound recording microphone 32, or line-in and these sound recording microphones 32 if needed.

[0019]Said memory 12 for messages memorizes the recorded housesitting message. As for said memory 22 for music, the sound recording of said housesitting message memorizes the background music recorded independently. This invention is not what limits concretely the memory 12 for these messages, and the memory 22 for music, For example, magnetic tape, such as a compact cassette and a micro cassette, may be used, and what is called an IC (integrated circuit) memory using [or] RAM etc. may be sufficient. However, the memory 12 for these messages and the memory 22 for music must be able to be independently recorded like the above-mentioned. Therefore, it is difficult to record the memory 12 for these messages, and the memory 22 for music using one magnetic tape. Therefore, the memory 12 for these messages and the memory 22 for music need two independent magnetic tape handlers, if both are recorded using magnetic tape, for example. On the other hand, the memory 12 for these messages and the memory 22 for music can also use the storage area where the same RAM of this IC memory differs, respectively, when both use said IC memory, for example.

[0020]In order to use said music reproduction mixing parts 18, for example at the time of the response of the above telephone calls when a user is absent, The synthesized speech of said housesitting message memorized by said memory 12 for messages and said background music memorized by said memory 22 for music is generated. This invention does not limit these sound reproduction mixing parts 18 concretely, and said memory 12 for messages and said memory 22 for sounds should just be what outputs the sound all memorized by each as an analog signal, for example, Mixed composition of the sound outputted from each may be carried out with an analog adder. Or in the case of the above IC memories, said memory 12 for messages and said memory 22 for music all these sound reproduction mixing parts 18, Addition mixing of the sound memorized by the memory 12 for these messages and the sound memorized by the memory 22 for music may be carried out in digital processing. In the case of addition mixing with the sound memorized by the memory 12 for these messages, and the sound memorized by the memory 22 for music, the volume of these sounds is not limited to what can be set up freely like the example mentioned later. For example, addition mixing of the volume of these sounds may be carried out under fixed setting out. In this case, the message BORIUMU set part 14 like an example and the music BORIUMU set part 24 which are

mentioned later become unnecessary, and can also make composition of the message volume control part 16 and the music volume control part 26 like an example mentioned later the thing of easier composition.

[0021]Said sound recording microphone 32 is used in order to blow the housesitting message of a user's request to said memory 12 for messages. Or this sound recording microphone 32 is used also in order to make the background music of the request outputted, for example from the loudspeaker of a tape recorder, etc. memorize to said memory 22 for music. In this drawing 1, it is switching said switch S1 to said memory 22 for music, and it is also possible to record desired background music from line-in.

[0022]According to this invention, like the above-mentioned, said memory 12 for messages and said memory 22 for music can be recorded independent, and a housesitting message, and the background music of this housesitting message and the becoming music can be independently recorded as explained above. That is, even if it changes a housesitting message, the already memorized above background music does not disappear. Therefore, the above messages with background music can be more easily recorded more to fitness again.

[0023]

[Example]Hereafter, the example of this invention is described in detail using figures.

[0024]Drawing 2 is a block diagram showing the composition of an answering machine provided with the message recorded message sender for telephone in which this invention was applied.

[0025]As shown in this drawing 2, the answering machine of this example, Mainly The sound recording microphone 32, the memory 12 for messages, and the memory 22 for music, It is constituted by the sound reproduction mixing parts 18, the telephone line receiver coupler 34, the telephone line transmission coupler 36, the message BORIUMU set part 14, the music BORIUMU set part 24, and the switches S1 and S2. Said sound reproduction mixing parts 18 are provided with the message volume control part 16, the music volume control part 26, and the adding machine 28.

[0026]First, as for said memory 12 for messages, and said memory 22 for music, the above IC memories are used by each in this example. The longest sound recording time of said memory 12 for messages is about 15 seconds. On the other hand, the longest sound recording time of said memory 22 for music is about 17 seconds. That is, the longest sound recording time of this memory 22 for music is longer than the longest sound recording time of said memory 12 for messages. Therefore, the time length of background music does not become short from the time length of a housesitting message to recording background music to the limit of the longest sound recording time to said memory 22 for music.

[0027]In said sound reproduction mixing parts 18, addition mixing is carried out with said adding machine 28, and the housesitting message memorized by said memory 12 for

messages and said background music memorized by said memory 22 for music are generated as a message with background music. This adding machine 28 adds said housesitting message by which PCM (pulse code modulation) sound recording is carried out, and said background music as digital data, and generates synthesized speech. Under the present circumstances, said message volume control part 16 controls the volume of said housesitting message from said memory 12 for messages based on volume setting out by said message BORIUMU set part 14. On the other hand, said music volume control part 26 controls the volume of the background music from said memory 22 for music based on volume setting out by said music BORIUMU set part 24. As for all, volume setting out of said message BORIUMU set part 14 and said music BORIUMU set part 24 at the time of the manual mode mentioned later is carried out with the manual operation button on the answering machine concerned, etc. Therefore, the ratio between the volume of the housesitting message ingredient in said message with background music, the volume of a background music ingredient, and these volume is properly controllable by these message volume control part 16 and music volume control part 26 grade.

[0028]It is connected to a predetermined telephone line, for example, a dial-up line, by said telephone line receiver coupler 34 and said telephone line transmission coupler 36 in the answering machine of this example.

[0029]In this example, the sound from said telephone line receiver coupler 34 can be memorized to said memory 12 for messages, switching said switch S2. By button grabbing according [connect / by this telephone line receiver coupler 34 / to a predetermined telephone line for example,] to a touch-tone phone type public telephone. It has come to be able to carry out the remote control operation of volume setting out by said message BORIUMU set part 14, and the volume setting out by said music BORIUMU set part 24 at the time of the manual mode mentioned later.

[0030]On the other hand, said telephone line transmission coupler 36 sends out the above messages with background music to the telephone call which receives a message from said predetermined telephone line at any time which said sound reproduction mixing parts 18 output as a response at the time of a user's absence, etc.

[0031]In this example, said music BORIUMU set part 24 has a "manual mode", and "automatic mode" and "variable automatic mode."

Any one is chosen.

Setting out of said manual mode will carry out volume setting out of this music BORIUMU set part 24 with the manual operation button on the answering machine concerned, etc. At the time of such a manual mode, this music BORIUMU set part 24 performs volume control of said music volume control part 26 based on volume setting out by which remote control setting out was carried out through said telephone line receiver coupler 34 grade. In said automatic mode,

this music BORIUMU set part 24, Detect the overall size of the volume of the housesitting message memorized by said memory 12 for messages, and. Detecting the overall size of the volume of the background music memorized by said memory 22 for music. The size of the volume of said background music is set up automatically so that the volume of the housesitting message ingredient in a message with background music and the volume of a background music ingredient which are outputted from said sound reproduction mixing parts 18 may serve as a suitable ratio. In said variable automatic mode, the volume of said background music in the above automatic modes is comparatively set up automatically one by one for every short time. namely, -- this variable automatic mode -- the size of each overall volume of said housesitting message or said background music -- not but -- each -- according to the size of the volume for every short time, the volume of said background music ingredient is set up comparatively automatically. Therefore, with this variable automatic mode, the volume of said background music ingredient can also be set up automatically comparatively more greatly, for example in the unrecorded portion in said memory 12 for messages.

[0032]According to this example, it is possible to record a housesitting message and background music independently with the application of this invention, and a message with background music can be more easily recorded as explained above. For example, when only a housesitting message is changed after a certain message preparing with background music, For example, also when changing a housesitting message from the public telephone of a place where one has gone, etc. in the above place-where-one-has-gone remote control functions, it can be considered as a good message with background music.

[0033]In this example, the volume of said housesitting message ingredient in the message with background music generated and the volume of said background music ingredient can be adjusted, and a more nearly quality message with background music can be created. In this example, it is also possible to perform automatically volume setting out of said background music ingredient. When it is made to set up automatically in this way, For example, for the check of the ratio of the volume of a housesitting message ingredient, and the volume of a background music ingredient when creating a message with background music in a remote control function from a place where one has gone, A desired message with background music can be created without not necessarily requiring the duration of call of the grade which does not necessarily need to monitor via a telephone line, therefore blows a desired housesitting message, i.e., monitor time.

[0034]In this example, the longest sound recording time of said memory 12 for messages is about 15 seconds as above-mentioned. On the other hand, the longest sound recording time of said memory 22 for music is about 17 seconds. That is, the longest sound recording time of this memory 22 for music is longer than the longest sound recording time of said memory 12 for messages. Therefore, the time length of background music does not become short from the

time length of a housesitting message to recording background music to the limit of the longest sound recording time to said memory 22 for music. The housesitting message memorized by said sound reproduction mixing parts 18 in this example by said memory 12 for messages, When carrying out addition mixing of said background music memorized by said memory 22 for music in said adding machine 28 grade, the length of the message with background music obtained is set up corresponding to the length of the housesitting message memorized by said memory 12 for messages. That is, it is set up about 1 to 2 seconds for a long time than the length of this housesitting message. Therefore, even if this housesitting message is comparatively short, the message with background music of moderate length is generable, and even if this housesitting message is completed, the message with background music by which only the background will be recorded is not generated.

[0035]

[Effect of the Invention]As opposed to the telephone call whose predetermined telephone line receives a message according to this invention as explained above, When changing a message with the device which answers by a message with background music, the outstanding effect that a message can be recorded can be acquired without erasing background music.